

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/023014

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N33/574 G01N33/569 C12Q1/68 G01N33/573 C07K14/47
C07K14/79 C07K14/82 A61K48/00 A61K38/00 A61K39/395

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A A X Y	<p>WO 99/29890 A (DIGENE CORP ; LORINCZ ATTILA T (US)) 17 June 1999 (1999-06-17) p.3, line 14 - p.5, line 15, claims</p> <p>-----</p> <p>WO 02/08764 A (MEDICAL RES COUNCIL ; DOORBAR JOHN (GB)) 31 January 2002 (2002-01-31) claims 1-22</p> <p>-----</p> <p>ANDERSON SUZANNE ET AL: "Telomerase activation in cervical cancer" AMERICAN JOURNAL OF PATHOLOGY, vol. 151, no. 1, 1997, pages 25-31, XP009039570 ISSN: 0002-9440 the whole document</p> <p>-----</p> <p>-/--</p>	<p>1,9,17, 60,69-72 2,11,18, 46-52,61</p> <p>1,24, 46-52, 60-72</p> <p>1,2,17, 18,60, 61,69-72</p> <p>3,12,19, 62</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

12 November 2004

Date of mailing of the international search report

14.04.05

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International Application No

PCT/US2004/023014

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/078695 A (LU TAO ; HURLEY LAURENCE H (US); UNIV TEXAS (US)) 10 October 2002 (2002-10-10)	46-52
A	p. 5, lines 12-17, p. 30 lines 13-18	1-24, 60-72
X	----- YATABE NORIYUKI ET AL: "2-5A antisense therapy directed against human telomerase RNA inhibits telomerase activity and induces apoptosis without telomere impairment in cervical cancer cells" CANCER GENE THERAPY, vol. 9, no. 7, July 2002 (2002-07), pages 624-630, XP002305238 ISSN: 0929-1903	46-52
A	the whole document	1-24, 60-72
X	----- DATABASE WPI Section Ch, Week 200260 Derwent Publications Ltd., London, GB; Class B04, AN 2002-563528 XP002305239 & KR 2002 012 838 A (BIOGRAND CO LTD) 20 February 2002 (2002-02-20) abstract	1,9,17, 60
A	----- VELDMAN TIM ET AL: "Human papillomavirus E6 and Myc proteins associate in vivo and bind to and cooperatively activate the telomerase reverse transcriptase promoter." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 100, no. 14, 8 July 2003 (2003-07-08), pages 8211-8216, XP002305412 ISSN: 0027-8424	1-24, 46-52, 60-72
Y	----- BERGER ALLISON J ET AL: "Insulin-like growth factor-binding protein 3 expression increases during immortalization of cervical keratinocytes by human papillomavirus type 16 E6 and E7 proteins" AMERICAN JOURNAL OF PATHOLOGY, vol. 161, no. 2, August 2002 (2002-08), pages 603-610, XP002305413 ISSN: 0002-9440 abstract,p. 607/608, IGFBP-3 expression in clinical samples	3,12,19, 62

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 46-52 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

- ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

See annex

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1,3-10,12-17,19-24,60,62-72 (part.); 2,11,18,46-52,61

diagnostic combinations comprising telomerase/hTERT as primary diagnostic marker; treatment of cervical cancer by way of targeting telomerase/hTERT

2. claims: 1,2,4-11,13-18,20-24,60,61,63-72 (part.);
3,12,19,53-59,62

diagnostic combinations comprising IGFBP-3 as primary diagnostic marker; treatment of cervical cancer by way of targeting IGFBP-3

3. claims: 1-3,5-12,14-19,21-24,60-62,64-72 (part.);
4,13,20,31-37,63

diagnostic combinations comprising transferrin receptor as primary diagnostic marker; treatment of cervical cancer by way of targeting transferrin receptor

4. claims: 1-4,6-13,15-20,22-24,60-63,65-72 (part.);
5,14,21,38-45,64

diagnostic combinations comprising beta-catenin as primary diagnostic marker; treatment of cervical cancer by way of targeting beta-catenin

5. claims: 1-5,7,8,17-21,23,24,60-64,66-72
(part.);6,9-16,22,25-30,65

diagnostic combinations comprising Myc-HPV E6 interaction as primary diagnostic marker; treatment of cervical cancer by way of targeting Myc-HPV E6 interaction

6. claims: 1-6,8-14,16-22,24,60-65,67-72 (part.);7,15,23,66

diagnostic combinations comprising HPV E7 as primary diagnostic marker

7. claims: 1-7,9-15,17-23,60-66,68-72 (part.);8,15,24,66

diagnostic combinations comprising telomer length as primary diagnostic marker

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Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
W0 9929890	A	17-06-1999	AU 748022 B2	30-05-2002
			AU 1723299 A	05-07-1999
			AU 746061 B2	11-04-2002
			AU 1911799 A	28-06-1999
			BR 9814271 A	20-03-2001
			BR 9814272 A	03-10-2000
			CA 2313483 A1	17-06-1999
			CA 2313641 A1	24-06-1999
			EP 1038029 A2	27-09-2000
			EP 1038022 A2	27-09-2000
			JP 2001526045 T	18-12-2001
			JP 2002508190 T	19-03-2002
			NO 20002979 A	09-08-2000
			NO 20002980 A	08-08-2000
			WO 9931273 A2	24-06-1999
			WO 9929890 A2	17-06-1999
			US 2003091992 A1	15-05-2003
			US 2001051364 A1	13-12-2001
			US 2002127545 A1	12-09-2002
			US 6355424 B1	12-03-2002
W0 0208764	A	31-01-2002	AU 4087701 A	05-02-2002
			CA 2417075 A1	31-01-2002
			EP 1305631 A1	02-05-2003
			WO 0208764 A1	31-01-2002
			JP 2004505247 T	19-02-2004
			US 2003219726 A1	27-11-2003
W0 02078695	A	10-10-2002	W0 02078695 A1	10-10-2002
			US 2003105130 A1	05-06-2003
KR 2002012838	A	20-02-2002	NONE	

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